# BAY-DELTA PUBLIC ADVISORY COMMITTEE WATERSHED SUBCOMMITTEE

# **Meeting Summary**

**Meeting Date/Location:** Friday, May 17, 2002

9:00 AM to 3:30 PM Cache Creek Watershed

Woodland, CA

**Meeting Attendees:** See Attachment A

**Meeting Handouts:** See Attachment B

#### Welcome and Introductions

Martha Davis, Watershed Subcommittee Co-chair, began the meeting with a welcome and round of introductions of all meeting participants (see Attachment A). She explained that this meeting is one in a series of Road Show events, through which the CALFED Watershed Program seeks to connect with local community efforts throughout the state, and provide a forum for those who are contributing to CALFED objectives in the Bay-Delta region.

#### Overview of the Cache Creek Watershed

Darryl Slotten of the University of California, Davis, provided a brief description of the watershed. He explained that the watershed provides important wildlife habitat, recreation activities and irrigation water. In the winter, greater water flow increases siltation levels. Mr. Slotten indicated that there is an ongoing conflict between wildlife and recreation resources. He also stated that there is a chronic mercury problem in Cache Creek due to mercury mining during the Gold Rush period of the 1800s. Miners in the Sierra used mercury mined in Cache creek to to amalgamate gold. These mines at the headwaters of the Cache and Putah Creeks have since been abandoned. Through UC Davis, Mr. Slotten and others have been assessing the impacts of mercury over the long term. These efforts have been funded by CALFED, mostly through the Ecosystem Restoration Program.

Mr. Slotten provided an overview of a set of maps and other graphics he distributed to participants. He pointed out that elevated mercury levels were detected in aquatic insects and fish. The highest levels of mercury have been found in the watershed's Turkey Run/Abbott Mine Complex. A TMDL is being created for Clear Lake in response to the Sulfur Bank Mine. There is also consideration of remediating even natural mercury sources.



Mr. Slotten explained that old mercury is the primary contamination problem in this area. There is concern that local efforts are shifting the problem down into the San Francisco Bay region. Mercury generally does not move past dams and reservoirs. However, mercury is a statewide problem, even though it originates in the Sierra Nevada, and coast ranges.

Mr. Slotten stated that there is still much scientific uncertainty regarding how to remediate mercury once it is present in a river. The known solution is to address the problem at its source. In the Sierra, there are efforts to collect mercury to continue to make gold mining economically viable.

Mr. Slotten described elevated levels of mercury in bass in the Davis Creek Reservoir. Winter sediment into the Reservoir amounted to 227 kilograms during a high flood year.

Mr. Slotten explained that Cache Creek has disproportionate impacts to San Francisco Bay relative to its size. He and Jan Lowrey (Cache Creek Conservancy) are working in the Cache Creek Nature Preserve to turn pit mines and lakes into ecologically beneficial and natural ponds, etc. If a lake is built in a mining area, microbes will generate methyl mercury. Therefore, in detecting mercury levels at the Preserve and impacts to Cache Creek, one must weigh habitat benefits against mercury concerns.

## **Bus Tour through Cache Creek Canyon**

During the bus tour through Cache Creek Canyon to Highway 20, Mr. Lowrey provided an overview of the watershed's geography. He explained that Cache Creek ends before it gets to the Bypass or Sacramento River. Lower Cache Creek includes 43 landowners along a 14-mile stretch. He indicated that landowner agreement and buy-in is the greatest challenge in the Valley. Project work presently taking place along the Creek, including tamarisk and arundo control, is being funded by the Watershed Program and Wildlife Conservation Board. The Cache Creek Conservancy is also sponsoring a Cache Creek Nature Preserve Education Program and a cooperative program with landowners.

Mr. Lowrey explained that Sire Industries, a mining company engaged in gravel extraction, has been doing off-stream, open-pit mining since 1996, and will dedicate 1,000 acres of land for restoration to Yolo County in 2007. The Cache Creek Conservancy is funded via a mining fee of \$0.20 per ton. This fee structure is easily transferable to other restoration efforts.

Mr. Lowrey also pointed out the Full Belly Farm, an organic farm in the Valley. He indicated that he hopes organic farming will expand throughout the Capay Valley. Organic farmers are facing competition from new residents seeking rural homesteads. Mr. Lowrey suggested that these conflicting interests are why preparation of an agricultural plan and vision is important, and why residents of the Valley must prepare for the future.

David Scheuring (Capay Valley Vision) provided additional information on the culture and demographics of the Valley. He indicated that the single school district, Highway 16 and the Watershed are the defining features of the community. However, a new subdivision is being developed, and there are other changes in land use. The Cache Creek Casino employs over 1,300 employees, and is participating in the development of the Capay Valley Vision. Mr.



Scheuring pointed out that there is a tension between "old timers" and new residents, and between recreationists and preservationists.

Vance Howard (Yolo County Resource Conservation District) provided a list of Watershed concerns expressed by local residents. These issues include: erosion and sediment, agriculture, gravel mining, water delivery, flood control, tamarisk and arundo, and mercury contamination. Erosion and sediment are naturally occurring in many cases. Additionally, there are 21 agriculture and gravel mining industries in Yolo County that contribute to the erosion and sedimentation problem.

Mary-Ann Warmerdam (Yolo County Flood Control and Water Conservation District) explained that the Yolo County Flood Control and Water Conservation District was established in the 1800s as a private water company. She stated that Clear Lake is the largest natural lake in California. Cache Creek Dam was built in the early 1900s, and is now governed in a constrained manner; there is little management discretion. The Indian Valley Reservoir allows for a conjunctive use program. There is no snow pack, and the water supply is dependent on precipitation. Some years deliver very minimal flows.

Ms. Warmerdam indicated that Bear Creek provides large quantities of boron to Cache Creek, creating a boron-contamination problem. The Creek is the primary means to get water to the Capay Valley floor. It is therefore in the best interest of the Yolo County Flood Control and Water Conservation District to be a cooperator in Capay Valley Vision efforts.

Greg Marion (BLM) explained that the Payne Ranch used to be unregulated grazing lands. Yellow starthistle, and medusa head took over when cattle ate and depleted native grasses. Salt cedar is boron-tolerant, and has decreased biodiversity. The BLM is interested in replacing tamarisk, but is not certain of what to replace it with.

Tony Gallegos (Lake County) gave an overview of Lake County watershed issues. Fourteen years ago the Lake County Board of Supervisors organized a CRMP and series of subcommittees, including database management, fisheries, land and water, citizen advisory committees, etc. The Board also attempted to organize state, federal, and Indian tribes. Per AB 2117, this is one of 10 watersheds that were analyzed by the state.

Mr. Gallegos indicated that Clear Lake is an impacted water body with mercury and nutrient problems. It is an old lake, and has historically been impacted by blue-green algae. Its clarity has increased significantly in recent years, but the lake is still eutropic. The lake also suffers from a hydrilla infestation. The lake has not been quarantined despite the hydrilla problem because of potential impacts to the economy. Mr. Gallegos explained that state-mandated statutes require the eradication of hydrilla. The California Department of Food and Agriculture has been working on Clear Lake to eradicate hydrilla since 1994. Over \$1 million are spent annually to eradicate the plant. Arundo and tamarisk are also issues in the lower watershed. The Bureau of Indian Affairs and Middle Creek CRMP are working to eliminate arundo seed sources and their spread.

Mr. Gallegos stated that mercury is also a problem for Clear Lake. There is disagreement on the source of mercury due to the complicated cycle of mercury. There is currently a draft TMDL for



Clear Lake, but point sources in the upper watershed are difficult to quantify.

Mr. Gallegos provided an overview of key projects in the Clear Lake watershed. The Basin 2000 Project involves a pipeline transporting sewage into geothermic areas. This reduces nutrients in the lake. The Middle Creek Marsh Restoration Project is 8 years old. A leveed area generates the majority of nutrients flowing into the lake. The levee system is of poor quality, failed under construction, and was poorly maintained. The US Army Corps of Engineers has recommended breaching the levee system and replacing it with restored wetland habitat. Public meetings on this topic are currently being held.

### **Tour of David Scheuring Property Restoration Site**

At his property, Mr. Scheuring led a tour and provided an overview of restoration efforts taking place. He explained that tamarisk and arundo have been a serious problem, and that their infestation has led to the loss of 5 acres of land and an expenditure of \$1 million in emergency restoration. The property also has a feral pig problem that has been addressed by installing fencing around the orchard. The almond orchards are irrigated using a line-drip system. Mr. Scheuring has been trying to establish an oak population on his property, but the seedlings have been eaten by deer.

Mr. Scheuring identified the source of the Blue Cliffs, or Blue Slides, adjacent to his property as ferrous iron. Petroleum exploration has been considered for the area, but the land mass is rising too quickly. East Capay Valley contributes a huge amount of gravel to the area's bedload.

Mr. Scheuring explained that while he has planted elderberry in the past, he no longer does so because of the hassle due to regulations protecting the long-horned elderberry beetle.

#### Lunch at the Cache Creek Casino

At lunch, Mr. Lowrey introduced the hosts from the Cache Creek Casino and provided a brief description of their participation in the Capay Valley Vision. He explained that Mr. Scheuring founded the Capay Valley Vision to provide a goal-oriented forum for neighbors to collaborate.

Following lunch, Gary Wegener (City of Woodland) offered an overview of the City of Woodland Wastewater Treatment Plant project.

#### Return to Cache Creek Nature Preserve, Preserve Tour, and Q&A

Craig Thomsen (UC Davis, Bear Creek Watershed) described his work funded through the National Fish and Wildlife Foundation to study yellow starthistle and other invasive species. The Wildlife Conservation Fund is funding a new tamarisk removal and native revegetation project in the upper Bear Creek watershed.

At the Cache Creek Nature Preserve (Preserve), Mr. Lowrey stated that the Preserve, opened in May 2000, is open to the public 1 weekend a month, but can accommodate visitors any business day. 130 acres are available to provide educational opportunities. The property was donated to



Yolo County by Teichert. A Memorandum of Understanding was signed that allows the property to be managed by the Cache Creek Conservancy (Conservancy). Mr. Lowrey explained that the Conservancy considers this a model that can be exported to other watersheds.

Mr. Lowrey provided an overview of his successful tamarisk removal effort. Tamarisk and arundo has infested at least 300 acres along 14 miles of the Preserve. Mr. Lowrey is planning RoundUp herbicide application workshops for this summer. Tamarisk provides roosting habitat if no other habitat is available. However, if the tamarisk is eliminated gradually, wildlife will not be displaced.

Following the tour of the Preserve, the meeting was adjourned.



## Attachment A

## **MEETING PARTICIPANTS**

| Name                | Affiliation   |
|---------------------|---|
|                     |   |
| Arriaza, Frank      | U.S. Bureau of Land Management                            |
| Bowker, Dennis      | CALFED Watershed Program/Sac River Watershed Program      |
| Buzzard, Diane      | U.S. Bureau of Reclamation                                |
| Dillon, Dee         | SWC   |
| Eggeman, Eda        | California Department of Fish and Game                    |
| Flores, J.R.        | Natural Resource Conservation Service                     |
| Gallegos, Tony      | Lake County Water Resources Division                      |
| Gulli, Evelyne      | State Lands Commission                                    |
| Harris, Bob         | Cow Creek Watershed/Sacramento River Watershed Program    |
| Haze, Steve         | Millerton Area Watershed Coalition                        |
| Heiman, Dennis      | Regional Water Quality Control Board                      |
| Howard, Vance       | Yolo County Resource Conservation District                |
| Jacobs, Selene      | Jones & Stokes  |
| Jerauld, Frank      | Amador Resource Conservation District                     |
| Long, Bob           | Natural Resource Conservation District                    |
| Lowrey, Jan         | Cache Creek Conservancy                                   |
| Lowrie, John        | CALFED Watershed Program                                  |
| Matson, Tanya       | Jones & Stokes  |
| Robins, Paul        | Yolo County Resource Conservation District                |
| Sheuring, David     | Capay Valley Vision/ Yolo County Flood Control and Water  |
|                     | Conservation District                                     |
| Sime, Fraser        | California Department of Water Resources                  |
| Slotten, Darryl     | UC Davis  |
| Thomas, Lenore      | Bureau of Land Management                                 |
| Thomsen, Craig      | UC Davis  |
| Uncapher, Paul      | North State Resources Inc.                                |
| Van Skike, Kristyne | CALFED  |
| Walsh Cady, Casey   | California Department of Food and Agriculture             |
| Ward, Kevin         | ICE, UC Davis   |
| Warmerdam, Mary-Ann | Yolo County Flood Control and Water Conservation District |
| Watson, John        | Cache Creek Conservancy                                   |
| Wermiel, Dan        | CALFED  |
|                     |   |



#### Attachment B

#### **MEETING MATERIALS**

- Meeting Agenda
- Set of Graphics Displaying Mercury Data for the Cache Creek Watershed
- List of Resource Management Issues Present in the Cache Creek Watershed
- Set of Clear Lake Basin Maps
- Overview of Middle Creek Ecosystem Restoration Project

